

- P1: Tall x short = medium

I think a tall plant mixed with a short plant will produce a medium plant because I know many people with both tall and short parents who are medium height. Most of the offspring will be medium, but others will be tall and short because of the traits passed.

F1: Tall

Why were all the plants tall? What happened to the short plant?

I would next test short plants together and tall plants together to see the results of the height of the offspring.

What happened to the shortness factor? Did it disappear?

Mendel self-pollinated one of the offspring from F1.

Self-pollinate F1 \rightarrow F2 will be all tall because both parents are tall.

- F1: Tall \rightarrow Tall x Tall

No, the F2 results are not what I expected because I thought the offspring would all be tall, but he concluded that there will be a mixture of tall and short offsprings. The shortness factor came back because two of the tall plant passed their short gene to the next generation.

The shortness factor showed up in the F2 generation because the gene was passed down each generation.

To make the numbers in the chart do a ratio between tall and short plants and so on. (Divide the results)

- F2: 787 Tall \rightarrow 3 tall:
277 Short 1 Short

- For every generation, F2, there will be a 3:1 ratio of the characteristics being tested. The genes from the first generation showed up in the next two generations. The recessive gene only showed in F2 and the dominant gene showed in F1 and F2.